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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,015	03/25/2002	Hideki Fujiwara.	F-7369	9145

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EXAMINER	
CHARLES, MARCUS	
ART UNIT	**PAPER NUMBER**
3682	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/089,015	FUJIWARA ET AL.	
	Examin r	Art Unit	
	Marcus Charles	3682	

-- The MAILING DATE of this communication app ars on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7,10,16 and 19* is/are allowed.

6)☒ Claim(s) *1-6,8,9,11-15,17,18 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment filed 03/15/2004, which has been entered.

Claims 1-20 are currently pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4-5, 11-12 14-15, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al.(5,517,957) in view of Kajihara et al.(5,607,240). Wagner et al. discloses a pulley unit (fig. 4) comprising a pulley body (42), a shaft body (50) concentrically disposed in the inner diameter side of the pulley, a one way clutch (48), interposed in the annular space between the hollow shaft body and the pulley body, a roller bearing (45) disposed in the annular spaced between the pulley body and the hollow shaft body such that the inner surface (44, 46) of the pulley body in the annular space and the outer surface of the shaft body in the annular groove forms the inner and outer raceway of the clutch and roller bearing, a seal ring (54, 55) disposed on each axial end of the annular space, a retainer (not labeled) for accommodating each roller elements of the rolling bearing and the clutch. Wagner et al. does not disclose the retainer of the annular portion facing the side of the seal ring and the annular portion having an outer diameter side, which is reduced in diameter and defining a step between the outer diameter and a seal so as to increase the storage

volume for lubricating oil. Kajihara et al. discloses a bearing unit comprising a bearing retainer (5) having a reduced outer diameter section (5w-a) defining a step between the outer diameter and the seal in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retainer of Wagner et al. so that the retainer has a reduced diameter in view of Kajihara et al. in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely.

In claims 4-5, note the retainer (5) of Kajihara et al. is tapered.

In claim 17, note the roller bearing (49) and the ball bearing (46).

In claim 21, it is apparent that the outer diameter of the ball bearing (45) is set larger than that of the roller bearing (49).

3. Claims 3, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. in view of as applied to claim 1 above, and further in view of GB(2,330,884). Wagner et al. does not disclose a recess between the clutch and the roller. GB(2,330,884) disclose a pulley unit having a clutch (34) and a roller (43) in an annular space between a pulley body (1) and a shaft (20) and a recess in the inner surface of the outer raceway between the clutch and the roller in order to obtain easy access of the bearing. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the inner surface of the pulley body of Wagner et al. so that it includes a recess between the clutch and the roller in view of GB (2,330,884) in order to obtain easy access of the bearing into the raceways.

4. Claim 6 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. in view of Kajihara et al. as applied to claim 1 above, and further in view of Doi et al.(6,367,982). Wagner et al. and Kajihara et al. doe not disclose that the roller is made from resin and includes oil. Doi et al. discloses a bearing comprising rollers (5) made from resin and that it is well known for such roller to include lubricating oil in order to reduce maintenance, reduce friction and improve the life span of the system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the rollers of Wagner et al. to include rollers made from resin and including lubricating oil in view of Doi et al. in order to reduce maintenance, reduce friction and improve the life span of the system

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (5,517,957) in view of Kajihara et al. (5,607,240) and GB (2,330,884). Wagner et al. discloses a pulley unit (fig. 4) comprising a pulley body (42), a shaft body (50) concentrically disposed in the inner diameter side of the pulley, a one way clutch (48), interposed in the annular space between the hollow shaft body and the pulley body, a roller bearing (45) disposed in the annular spaced between the pulley body and the hollow shaft body such that the inner surface (44, 46) of the pulley body in the annular space and the outer surface of the shaft body in the annular groove forms the inner and outer raceway of the clutch and roller bearing, a seal ring (54, 55) disposed on each axial end of the annular space, a retainer (not labeled) for accommodating each roller elements of the rolling bearing and the clutch. Wagner et al. does not disclose the retainer of the annular portion facing the side of the seal ring and the annular portion

having an outer diameter side, which is reduced in diameter so as to increase the storage volume for lubricating oil. Kajihara et al. discloses a bearing unit comprising a bearing retainer (5) having a reduced outer diameter section (5w-a) in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the retainer of Wagner et al. so that the retainer has a reduced diameter in view of Kajihara et al. in order to allow air to escape while allowing the axial movement of grease to the rollers more easily and freely.

In addition, Wagner et al. does not disclose a recess between the clutch and the roller. GB (2,330,884) disclose a pulley unit having a clutch (34) and a roller (43) in an annular space between a pulley body (1) and a shaft (20) and a recess (see attached drawing) in the inner surface of the outer raceway between the clutch and the roller in order to obtain easy access of the bearing. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the inner surface of the pulley body of Wagner et al. so that it includes a recess between the clutch and the roller in view of GB (2,330,884) in order to obtain easy access of the bearing into the raceways.

Allowable Subject Matter

6. Claims 7, 10, 16 and 19 are allowed.

Response to Arguments

7. Applicant's arguments filed 03-15-2004 have been fully considered but they are not persuasive. Applicant contended that there is no motivation for combining the

reference. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious for one skilled in the art to replace the annular portion of Wagner et al. with the annular portion of Kajihara et al., since the stepped portion of the annular portion is well known in the art and it is inherent for the storage of lubricating oil to be increase when the annular end is tapered.

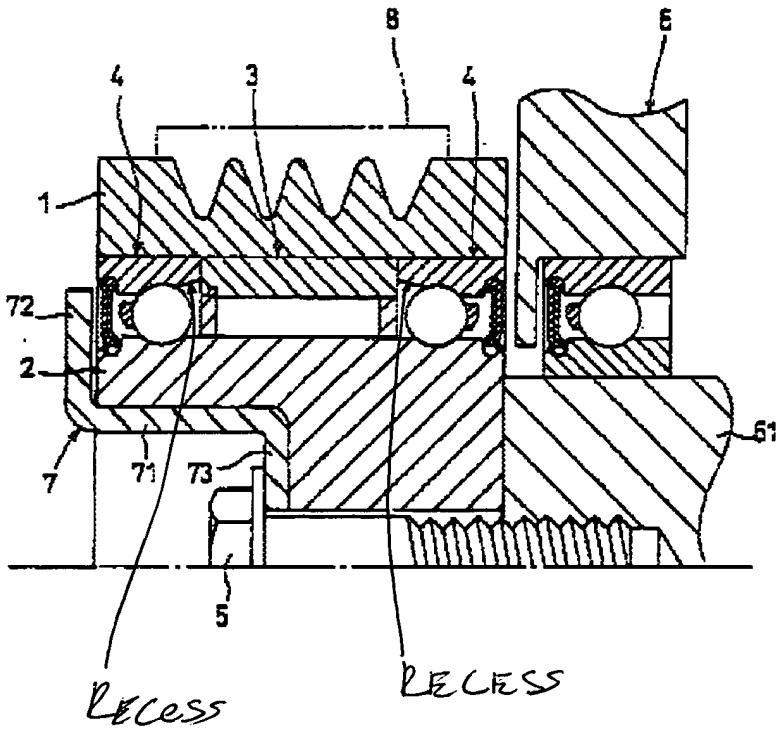
Regarding the remarks relating to claim 8 to GB (2,330,884). GB (2,330,884) clearly shows the recess as indicated in the attached drawing below.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

FIG. 7



9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (703) 305-6877. The examiner can normally be reached on Monday -Thursday 7:30 am-600 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcus Charles
Primary Examiner
Art Unit 3682
June 14, 2004